



AFRICAN UNION
INTERAFRICAN BUREAU
FOR ANIMAL RESOURCES

Energy Transition and Decarbonization of the Fisheries Sector in Africa: Challenges, Continental Initiatives, and Prospects for the African Blue Economy

Patrick Karani

Environment, Climate Change and Blue Economy

AU-IBAR

African Union



Africa Blue Economy Strategy



AU-IBAR:
INTERAFRICAN BUREAU FOR ANIMAL RESOURCES
BUREAU INTERAFRICAIN DES RESSOURCES ANIMALES



Dr. Patrick Karani
Technical Expert
Environment, Climate Change
Blue Economy

- ❖ *PhD in International Political Economy and Masters in International Development and Social Change, Clark University, Worcester, MA, USA*
- ❖ *Managing Partner, BEA International, Consulting Firm, Technical Expert, AU-IBAR*
- ❖ *Previous Employer, World Bank Group, Washington, DC, USA*
- ❖ *Work experience experience in Blue Economy, Climate Finance, Carbon Markets, Environment and Socialsafeguards, Environmental Impact Assessment and Environmental Strategic Management Plans*

Introduction

The African Union InterAfrican Bureau for Animal Resources (AU-IBAR) is a technical office mandated to support and coordinate the sustainable development and use of animal resources including livestock, fisheries and wildlife for economic, food and nutritional security.

AU-IBAR supports and empowers AU-Member States and Regional Economic Communities (RECs) in taking actions related to animal health including one health, control and possible eradication of transboundary animal diseases and zoonoses, capacity building, veterinary governance, management among others.

Some of the AU-IBAR Programmes:

(i) Fisheries Governance- **Enhancing the contribution of fisheries resources to food security and economic growth in Africa (Fisheries Governance)—implementing Africa Blue Economy Strategy**

(ii) Aquatic Biodiversity Conservation-**Conserving Aquatic Biodiversity in the context of Blue Economy Resources**

(iii) **African Blue Economy Strategy- Supporting AU-Member States with preparation and development of National blue economy strategies aligned to RECs and ABES**



VISION

An Africa in which animal resources contribute significantly to integration, prosperity and peace.



MANDATE

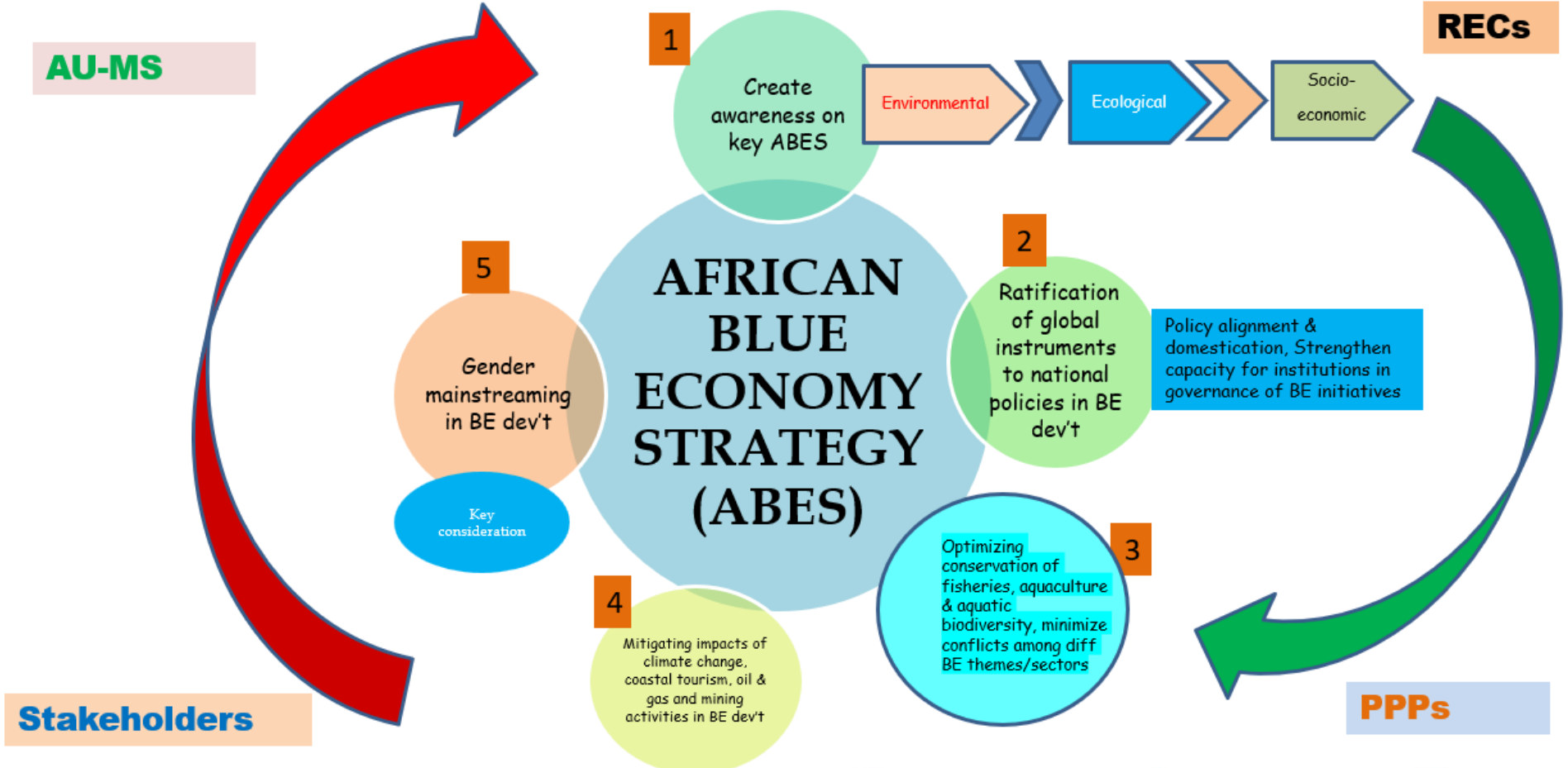
To support and coordinate the sustainable development and utilization of animal resources (livestock, fisheries and wildlife) to enhance nutrition and food security and contribute to the wellbeing and prosperity of the people in the Member States of the African Union



MISSION

To provide leadership and integrated support services for the development of animal resources in Africa

What AU-IBAR is Doing:



Enhancing Sustainable Fisheries Management and Aquaculture Development in Africa (Fisheries Governance 2)

Enhancing the contribution of sustainable fisheries and aquaculture to the AU Agenda 2063's objectives

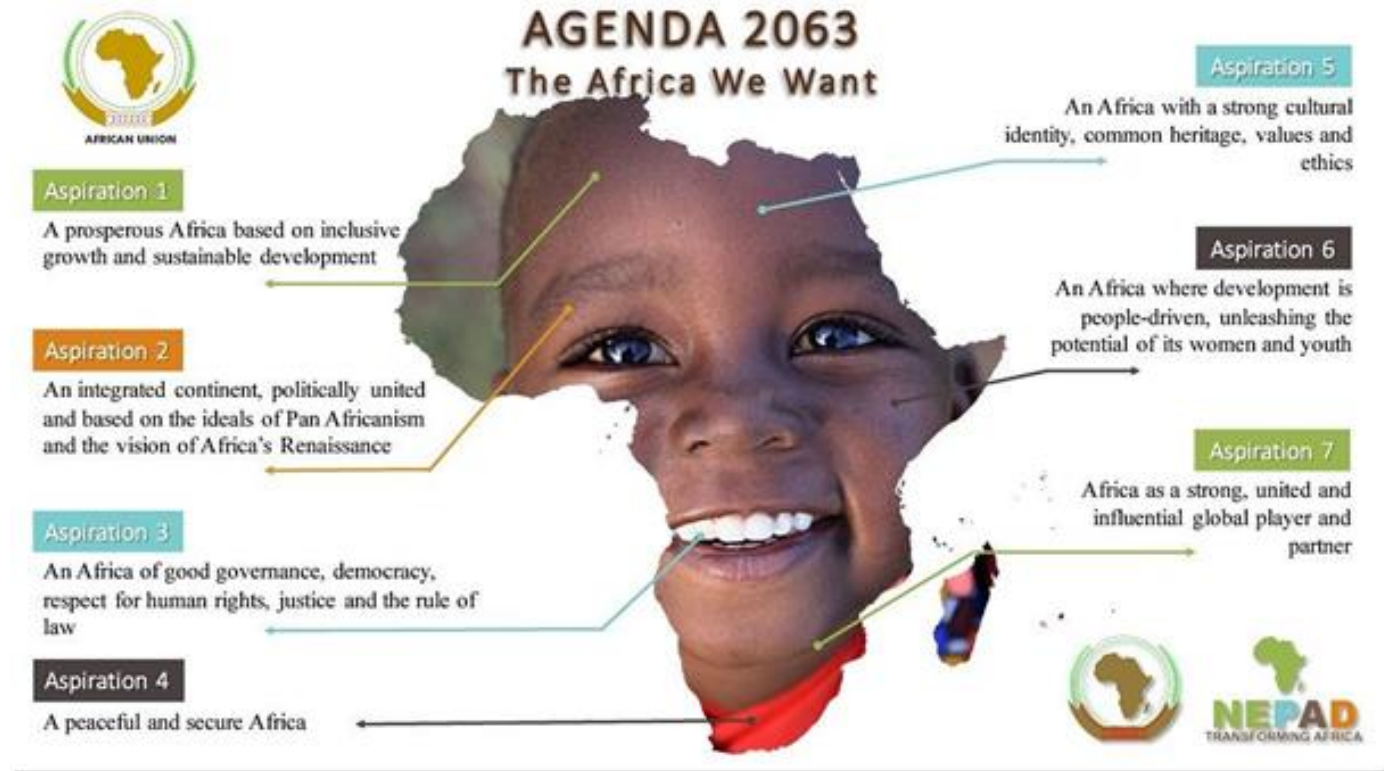
- ✓ Food and nutritional security
- ✓ Livelihoods
- ✓ Wealth creation

First phase

- ✓ 2014-2018
- ✓ 11 m EUR

Second phase

- ✓ 2021-2025
- ✓ 13.2 m EUR



Underpinning AU instruments



Agenda 2063 – The strategic framework for the socio-economic transformation of the African continent over 50 years.

- ASPIRATION I. A Prosperous Africa Based on Inclusive Growth and Sustainable Development, **Goal 6: Africa's Blue economy, shall be a major contributor to continental transformation and growth,**



Malabo Declaration on accelerated agricultural growth and transformation for shared prosperity and improved livelihoods.

- Commitment 3: Ending Hunger in Africa by 2025



2050 Africa's Integrated Maritime Strategy

- Key pillar for economic and social development, through enhancing a sustainable “blue economy”



The Comprehensive Africa Agriculture Development Programme (CAADP)

Improve food and nutritional security, enhance livelihoods and generate wealth – **4 pillars- land water management, market access, food supply and research technology**



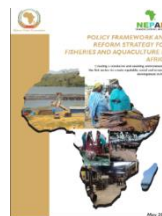
Underpinning AU instruments

Other AU instruments that laid the foundation for blue economy development of the continent:



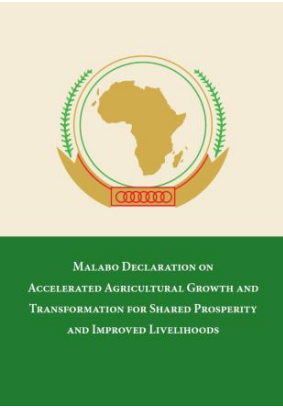
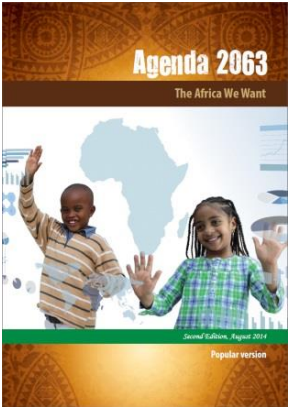
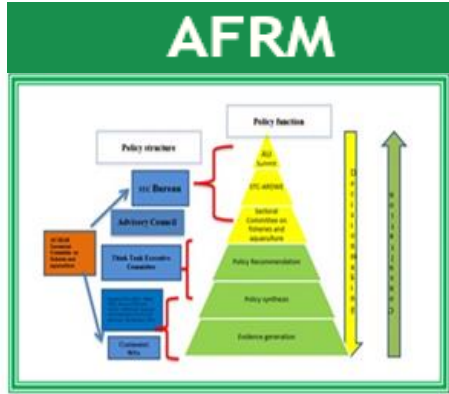
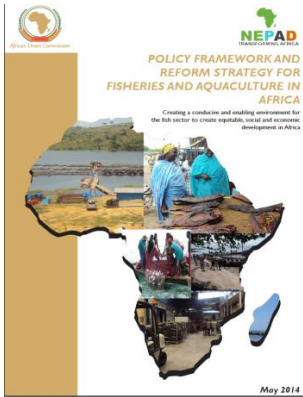
African Charter on Maritime Security and Safety and Development in Africa

- Concerned about the protection of biodiversity and the sustainable use of marine resources of the planet in accordance with the Convention.



The Policy Framework and Reform Strategy for Fisheries and Aquaculture in Africa

Contributing Towards the Implementation of Key Policy Instruments & Strategies



Energy Transition and Decarbonization of the Fisheries Sector in Africa: Challenges, Continental Initiatives, and Prospects for the African Blue Economy

Introduction:

- Central to developing a sustainable Blue Economy, aiming to mitigate climate change while securing food and livelihoods for millions of people.
- Fisheries sector is important for food security and nutrition, jobs and for the livelihoods of millions of people, in Africa, population estimated at 1.59 billion with annual growth rate of 2.3%
- Fishing vessels globally contribute 0.1–0.5% of total carbon emissions
- In 1950, SSFs emitted about 8,000,000 tonnes of CO₂ and this increased six-fold by 2016 (to forty eight million tonnes) and as of 2026, emissions have increased almost threefold.
- Foreign fishing vessels, often operating as large industrial trawlers, have a disproportionately high impact, contributing heavily to overfishing, destroying local gear, and operating with high emissions intensity.

Emissions Comparison for Small-Scale against Industrial Fleets

- **Industrial/Foreign Fleets (High Impact):** These vessels, which include distant-water fishing (DWF) fleets from Europe and Asia, often use fuel-intensive bottom trawling and dredging. Industrial factory freezer trawlers (FFT) can emit over 200 tons of CO₂ in a single 21-day voyage, with trawling being the most polluting activity.
- **Small-Scale/Artisanal Fleets (Low to Moderate Impact):** SSF provide over 60% of the total catch in West Africa, yet their emissions are relatively low per unit of food produced compared to industrialized methods. However, as fish stocks deplete near the coast, SSF fishers are forced to travel further, leading to higher fuel consumption.
- **Emission Drivers:** The increasing motorization of the global fleet is driving up emissions, with crustacean and tuna fisheries being the most fuel-intensive.

Continental Prospects to Transition and Decarbonization

Components	Practical Actions
Economic	National mitigation and adaptation plans for the fisheries sector value chain and energy matrix , IMO & FAO Best Practices
Technological	Circular economy practices, such as transforming fish waste and seaweed into biofuel or biogas for fishing vessels
Trade and Value Chain	Harmonized System codes for the latest renewable energy goods and related technologies supporting carbon footprints (UNCTAD, WTO)
Climate Change	NDCs commitment of fisheries mainstreaming GHG emissions reduction and inventories
Environment	Regulatory measures that are applicable to fishing vessels , emission reductions and adaptation plans
Social	Labour Laws on working conditions, and safeguard measures (ILO, IMO, WTO)
Institutional: Policy, Law, Legislation and Regulation	Utilize AU-Agenda 2063 to address trade risks from interconnected shocks across political, economic, energy, technological and climate dimensions

Challenges

- **Small-Scale Fleet Vulnerability:** lacking access to credit for retrofitting engines or purchasing new equipment.
- **Lack of Infrastructure:** Inadequate cold storage and landing site, high post-harvest losses and increased carbon footprint during transport.
- **Overfishing and IUU Fishing:** Illegal, Unreported, and Unregulated (IUU) reduces the incentive for sustainable investment and weakens the overall making decarbonization difficult to justify financially.
- **Data Scarcity:** A significant lack of data regarding fuel consumption numbers, and GHG emissions among small-scale fleets hinders evidence-based policy formulation.
- **Ecological Disruption:** Foreign vessels use bottom trawling and dredging, damage seafloor ecosystems, cause significant bycatch, and catch non-target species, causing ecological imbalance.
- **Gear Destruction:** Local artisanal fishers frequently report that foreign vessels destroy their fishing gear (nets, traps), causing severe financial hardship for local fishermen.
- **Conflict and Security:** The competition for fish resources has led to regional conflicts and increased security risks for local fisheries in areas like the Gulf of Guinea and Mozambique.



Potential Opportunities

- **UNCTAD's Energy Transition Roadmap:** UNCTAD is supporting African countries in mapping challenges and opportunities to create a roadmap for reducing GHG emissions in fisheries, particularly focusing on small-scale fishers.
- **Blue Transformation in Africa (FAO):** The FAO is actively promoting "Blue Transformation," which includes modernizing aquaculture, reducing post-harvest losses, and encouraging energy efficiency in fishing fleets, with a goal to enhance aquaculture production by 35% by 2030.
- **African Union Blue Economy Strategy (ABES):** This strategy highlights the need for sustainable fisheries management and the development of the blue economy as a cornerstone of development, focusing on regional integration through frameworks like Africa Continental Free Trade Area (AfCFTA).
- **World Bank's Blue Economy for Resilient Africa Program (BE4R):** Launched at COP27, this program provides financial and technical support for ocean-based climate actions, including sustainable aquaculture and coastal protection.
- **Regional Collaboration:** Initiatives like the Morocco-Nigeria gas pipeline project and Atlantic façade initiatives aim to strengthen port logistics and infrastructure

Prospects for the African Blue Economy

- **Growth in Sustainable Aquaculture:** Sub-Saharan Africa has the fastest-growing aquaculture sector worldwide, which provides opportunities for low-carbon, high-yield food production.
- **Investment in Renewable Energy:** The integration of solar-powered cold chains and offshore renewable energy (e.g., wind, tidal) can reduce dependence on diesel and enhance energy access for coastal communities.
- **Improved Livelihoods & Food Security:** A "just" transition can create new, sustainable jobs, enhance food security by reducing fish spoilage, and increase income for local fishermen.
- **Blue Carbon and Nature-Based Solutions:** Protecting coastal ecosystems like mangroves, which act as carbon sinks and fish nurseries, enhances ecological resilience.
- **Innovative Financing:** The adoption of blue bonds and debt-for-nature swaps is allowing nations to secure financing for sustainable projects. Seychelles Blue Bond
- **Fish trade and value addition-** use of climate smart processing technology

Conclusion

The fisheries sector in Africa will experience severe challenges by 2050 as a consequence of meeting the demand of a growing population while facing the impacts of climate change.

The energy transition and decarbonization of fisheries sector in Africa, identifies ways to ensure the sustainability of both marine and freshwater fisheries are within the framework of a blue economy that emphasizes the services provided by healthy ecosystems.

To gain support for the energy transition it is essential to recognize potential benefits such as the creation of green and blue jobs, economic diversification and ecosystem conservation with blue and green carbon footprint

Recommendations

- Ensure that the shift towards renewable and sustainable energy sources promotes a just energy transition that also prioritizes the well-being, livelihoods and rights of fishers and their families.
- Revitalize the ratification and implementation process for the ILO Work in Fishing Convention (C188) to ensure minimum standards for working conditions, occupational safety and health, and social security in the fisheries sector.
- Enhance fishing safety by encouraging additional ratifications of the Cape Town Agreement by the IMO. Once it has entered into force, enforce the agreement to establish significant safety standards for fishing vessels.
- Assess the potential implications of FAO's draft guidance on "Social Responsibility in Fisheries and Aquaculture Value Chains" in the context of energy transition.
- Promote green and blue jobs in the renewable energy and blue economy sectors, including manufacturing, installation, and maintenance of efficient and renewable energy systems in vessels and ports and blue value chains in fisheries and aquaculture.
- Provide comprehensive support, reskilling and upskilling (capacity building), and social protection programmes to address job losses and income disparities in traditional energy and blue economy sectors.
- Ensure that decarbonization efforts consider the well-being of fishing crew members, providing support for any workforce transitions necessitated by changes in vessel operations.
- Involve local fishing communities and stakeholders in decision-making processes, ensuring that decarbonization efforts align with their needs and values.
- Ensure equitable distribution of benefits among fishing communities. Incorporate gender-responsive climate action in energy transition planning to promote gender equality in fishing communities.
- Implement effective management practices, including increased monitoring, verification, reporting (MVR), transparency and information dissemination, to ensure equitable employment and social protection practices for fish workers under the best practices such as ILO and FAO.

Thank you

Merci

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Obrigado

Gracias

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